beyma

PROFESSIONAL LOUDSPEAKERS

www.beyma.com

SM-212

LOW FREQUENCY TRANSDUCER

SM Series

KEY FEATURES

- High power handling 350 W_{AES}
- High sensitivity: 97 dB (1W / 1m)
- 2,5” copper voice coil
- Lightweight curvilinear cone
- Extended controlled displacement: X_{max} ± 8,25 mm
- 27 mm peak-to-peak excursion before damage
- Designed for low and mid frequencies reproduction

TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		6,5 Ω
Power capacity [1]		350 W_{AES}
Program power [2]		700 W
Sensitivity	97 dB	1W / 1m @ Z_N
Frequency range		45 - 4.000 Hz
Recom. enclosure vol.	30 / 100 l	1,1 / 3,5 ft^3
Voice coil diameter	63,5 mm	2,5 in
Bl factor		14,4 N/A
Moving mass		0,057 kg
Voice coil length		19,5 mm
Air gap height		7 mm
X_{damage} (peak to peak)		27 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	43 Hz
D.C. Voice coil resistance, R_e	5,5 Ω
Mechanical Quality Factor, Q_{ms}	5,3
Electrical Quality Factor, Q_{es}	0,41
Total Quality Factor, Q_{ts}	0,38
Equivalent Air Volume to C_{ms}, V_{as}	103 l
Mechanical Compliance, C_{ms}	240 µm / N
Mechanical Resistance, R_{ms}	2,9 kg / s
Efficiency, η_0	1,9 %
Effective Surface Area, S_d	0,055 m^2
Maximum Displacement, X_{max} [4]	8,25 mm
Displacement Volume, V_d	453 cm^3
Voice Coil Inductance, L_e	0,6 mH

Notes:

[1] The power capaticty is determined according to AES2-1984 (r2003) standard.

[2] Program power is defined as power capacity + 3 dB.

[3] T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

[4] The X_{max} is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

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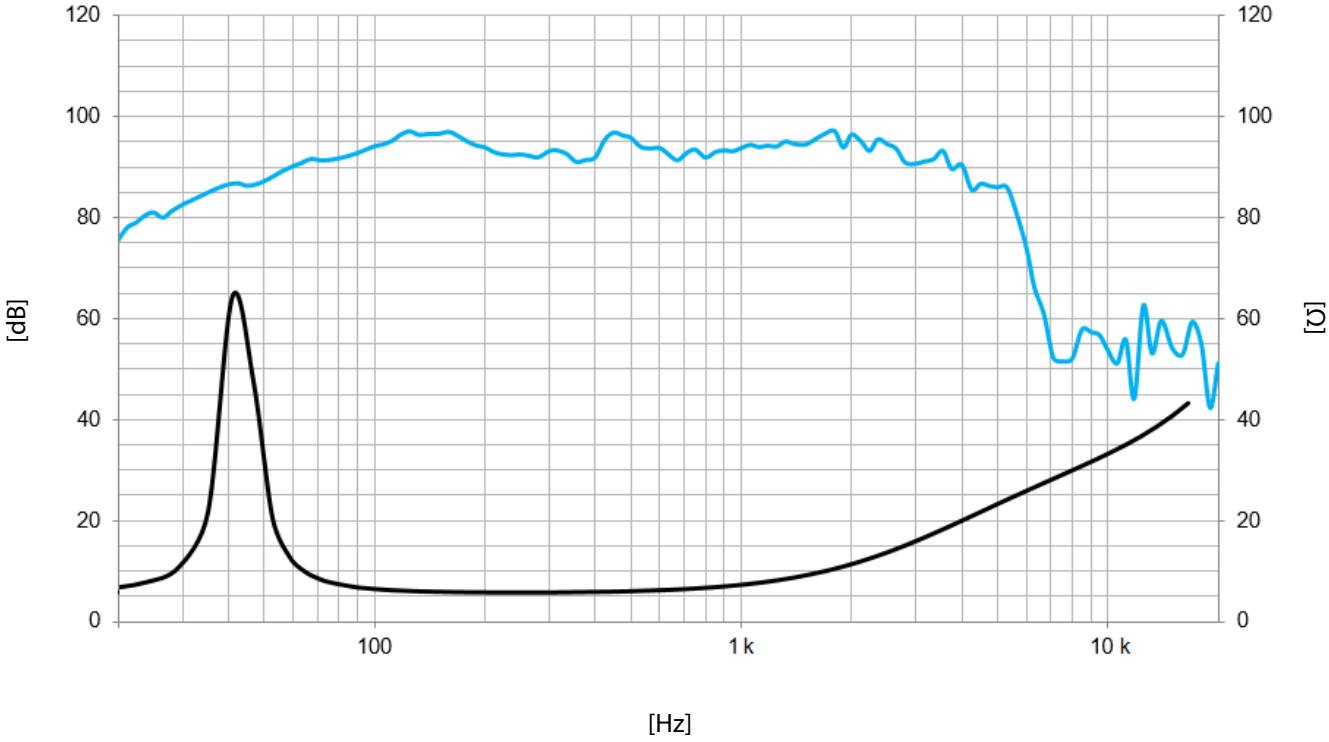
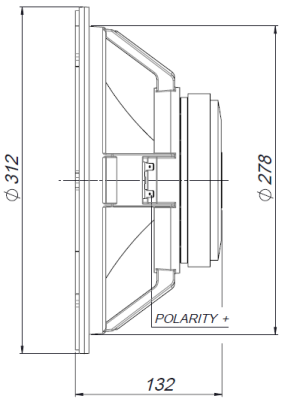


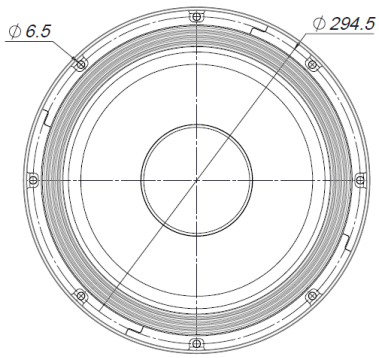
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Overall diameter	312 mm	12,3 in
Bolt circle diameter	294,5 mm	11,6 in
Baffle cutout diameter:		
- Front mount	278 mm	10,9 in
Depth	132 mm	5,2 in
Volume displaced by driver	4 l	0,14 ft³
Net weight	4,6 kg	10,1 lb
Shipping weight	5,3 kg	11,7 lb

DIMENSION DRAWING





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